

IN THE CLAIMS:

Please amend the claims to read as follows:

1. (Previously Presented) A distributed conferencing system, comprising:

a system communication bus;

a plurality of conferencing nodes connected to said system communication bus, each of said plurality of conferencing nodes comprising:

means for measuring a characteristic of each of a number of local participant input signals;

processing means, connected with said measuring means, for distinguishing significant signals from non-significant signals within said local participant input signals by comparison of said measured characteristic;

communication means, connected with said processing means and said system communication bus, for communicating said measured characteristic of each of said significant signals, to said plurality of conferencing nodes and for receiving said measured characteristic of each of said significant signals of remote participant input signals from said plurality of conferencing nodes;

comparison means for comparing said measured characteristic of each of said significant signals of said local participant input signals and

said remote participant input signals.

2. (Previously Presented) A distributed conferencing system according to Claim 1, wherein:

said measured characteristic is the power level of said signal.

3. (Previously Presented) A distributed conferencing system according to claim 2, wherein:

al said processing means identifies the local participant input signals having the highest power levels.

4. (Previously Presented) A distributed conferencing system according to Claim 2, each of said nodes further comprising:

gain control means, interconnected with said processing means, for individually controlling a gain applied to each of said number of local participant input signals, after said power measuring means has measured the power on said number of participant input signals; and

summing means for summing said number of local participant input signals, after said gain control has been applied to said number of local participant input signals.

5. (Previously Presented) The conferencing system of claim 4, wherein: said

communication means also communicates said summed number of local participant input signals to all other of said plurality of conferencing nodes.

6. (Previously Presented) The conferencing system of claim 5, wherein:

said communication means further comprises a multiplexing means for multiplexing said summed number of local participant input signals and said measured power for a plurality of said number of participant input signals into a multiplexed node signal.

7. (Previously Presented) The conferencing system of claim 6, wherein:

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said communication means further comprises a demultiplexing means for demultiplexing said multiplexed node signal generated by each of the other nodes of said plurality of conferencing nodes.

8. (Previously Presented) The conferencing system of claim 7, wherein:

said system communications bus is a time-division multiplexing bus interconnecting said communication means of each of said plurality of conferencing nodes that conveys said multiplexed node signal generated by each of said plurality of conferencing nodes.

9. (Previously Presented) The conferencing system of claim 5, wherein:

said processing means determines the relative power levels of each said remote participant input signals from said plurality of conferencing nodes.

10. (Previously Presented) The conferencing system of claim 1, wherein:

at each of said plurality of conferencing nodes, said processing means identifies a number, N, of said significant participant input signals from said local participant signals.

al 11. (Previously Presented) The conferencing system of claim 10, wherein:

at each of said plurality of conferencing nodes, said processing means identifies a number, N, of said significant participant input signals from said local participant signals and said participant signals from said plurality of conferencing nodes.

12. (Previously Presented) The conferencing system of claim 10, wherein:

at each of said plurality of conferencing nodes, said processing means causes said gain control means to apply a gain level that effectively mutes each of said number of local participant input signals that is not one of said number, N.

13. (canceled)

14. (Previously Presented) The conferencing system of claim 12, wherein:

at each of said plurality of conferencing nodes, said plurality of local participant input signals having their measured power communicated to all other of said plurality of conferencing nodes are said local participant input signals having the greatest power levels.

15. (Previously Presented) The conferencing system of claim 14, wherein:

said number, N, of local participant input signals from said plurality of conferencing nodes having the greatest power levels is set equal to the number of said plurality of remote participant input signals having their measured power communicated to all other of said plurality of conferencing nodes.

16 - 19. (Canceled)

20. (Previously Presented) The conferencing system of claim 4, further comprising:

combining means, interconnected with said communication means and said gain control means, for combining said number of remote participant input signals from each of said plurality of conferencing nodes, after said gain control has been applied to said number of local participant input signals; and

outputting means for outputting said combined number of participant input signals from each of said plurality of conferencing nodes to each of a number of local conference participants creating said local participant input signals, wherein

said outputting means effectively mutes the contribution of each participant's own input signal, within said combined number of participant input signals, before outputting said combined number of participant input signals to said number of conference participants.

21. (New) A method for transmitting communication signals in a telephony conferencing system, comprising:

connecting a plurality of telephony conference nodes, comprising a local conference node and at least one remote conference node, to a system communication bus;

connecting a plurality of communication channels to each of said local and said remote conference nodes;

selecting, in said local node, a set of local input signals received in said local communication channels measured with highest power levels in said local node and transmitting said set of local input signals and said highest power level measurements of said set of local input signals to said remote node;

determining, in said remote node, a set of remote input signals received in said remote communication channels having highest power levels in said remote node and transmitting said set of remote input signals and said highest power level measurements of said set of remote input signals to said local node;

comparing, in each node, said power level measurements for all of said local and

said remote sets of input signals;

determining, in said local and said remote nodes, an aggregate sum of said remote input signals having highest power levels from said comparing all of said local and remote sets of input signals; and

transmitting said aggregate sum to each of said local communication channels as an output,

wherein, if one of said local input signals includes said highest power levels, then transmitting said one of said local input signals to said local communication channels as an output.

21. (New) The method of claim 19, wherein each of said communication channels receives an output of said aggregate input signals.

22. (New) The method of claim 19, wherein, if one of said set of local input signals has the highest power levels, applying a gain said one of said local signals.

23. (New) The method of claim 19, further comprising:

modifying a gain for said set of signals within each node and muting said local input signals not within said set of input signals.

25. (New). The method of claim 19, further comprising:

providing a combiner in each node for summing each set of signals; and
transmitting said summed signal and said highest power levels for each set of
signals to said nodes connected to said system communication bus other than a node
originating said summed signal.